

RECEIPT

PATENT 19603/1656 (CRF D-2093C)

)

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants	:	Campbell et al.	) )	Examiner: Unknown
Serial No	:	09/656,409	Ś	Art Unit: 3738
Cnfrm No	:	9516	)	
Filed	:	September 6, 2000	)	

For : NON-OCULAR CIRCADIAN CLOCK RESETTING IN HUMANS

# SECOND REQUEST FOR CORRECTED FILING RECEIPT

Assistant Commissioner for Patents Office of Initial Patent Examination Customer Service Center Washington, D.C. 20231

Dear Sir:

Applicants hereby request a corrected filing receipt for the above-identified application. On the enclosed copy of the official filing receipt, the continuing data is still incorrectly worded. It should read "CONTINUING DATA AS CLAIMED BY APPLICANT - THIS APPLICATION IS A DIV OF 09/074,455 05/07/1998 WHICH CLAIMS BENEFIT OF 60/046,188 05/12/1997 AND 60/072,121 01/22/1998". A copy of page 1 of the Specification as filed indicating the continuing data of the two provisional applications is enclosed herewith.

Since Applicants are not responsible for this error, no fee is enclosed.

Respectfully submitted,

Dated: Jehrman , 200

Gunnar G. Leinberg Registration No. 35,584

Nixon Peabody LLP Clinton Square, P.O. Box 31051 Rochester, New York 14603-1051

Telephone: (716) 263-1014 Facsimile: (716) 263-1600 Certificate of Mailing - 37 CFR 1.8(a)

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231, on the date below.

2/2/2001

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# NON-OCULAR CIRCADIAN CLOCK RESETTING IN HUMANS

# BACKGROUND OF THE INVENTION

## 1. Field of the Invention

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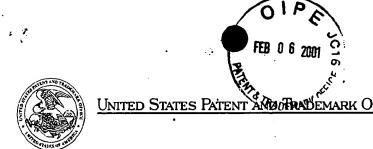
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This application claims the benefit of U.S. Provisional Application
No. 60/046,188 filed May 12, 1997 and U.S. Provisional Application No. 60/072,121
filed January 22, 1998. This invention was made with Government support under Grant
No(s). R01MH45067 and K02MH01099, awarded by the National Institute of Health.
The Government has certain rights in the inventions. This invention relates to a method
for resetting the phase of the human circadian clock and for enhancing alertness and
performance in humans by application of non-solar photic stimulation, in the range of 15
to 150,000 lux, to any non-ocular region of the human body.

#### 2. Related Art

As with all vertebrates, humans exhibit temporal organization in behavior and in numerous physiological functions. In response to the natural alternation in light and dark, virtually all species have developed endogenous rhythms with frequencies close to 24 hours. These internally generated, self-sustaining rhythms are known as circadian rhythms (from the Latin circa = about, and dies = day). The pervasive nature of such rhythms suggests that circadian temporal organization is vital to the overall well-being of the organism. Numerous systems and functions are mediated by the circadian system including hormonal output, body temperature, rest and activity, sleep and wakefulness, and motor and cognitive performance. In all, literally hundreds of circadian rhythms in mammalian species have been identified.

Left to run at its inherent frequency, the human biological clock that is responsible for the generation of circadian rhythms exhibits a daily periodicity of slightly longer than 24 hours. Thus, a daily correction to the clock must be made for our internal rhythms to remain synchronized or 'entrained' to the natural 24 hour day. It is widely accepted that exposure to the natural light/dark cycle provides the strongest signal to entrain the human circadian system to the geophysical day. Inadequate exposure to light of sufficient intensity is a contributing factor in disorders associated with biological rhythm disturbance, such as seasonal affective disorder (SAD), jet lag from transmeridian travel, shift work and some types of insomnia (advanced and delayed sleep phase syndromes). Timed exposure to artificial bright light to the eyes has been used successfully to treat



COMMISSIONER FOR PATENTS
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WANN ISTROGON

 APPLICATION NUMBER
 FILING DATE
 GRP ART UNIT
 FIL FEE REC'D
 ATTY.DOCKET.NO
 DRAWINGS
 TOT CLAIMS
 IND CLAIMS

 09/656,409
 09/06/2000
 3738
 345
 19603/1656
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 13
 2

REPLACEMENT FILING RECEIPT

\*OC00000005713813\*

Gunnar G Leinberg Esq Nixon Peabody LLP Clinton Square P O Box 31051 Rochester, NY 14603

Date Mailed: 01/29/2001

Receipt is acknowledged of this nonprovisional Patent Application. It will be considered in its order and you will be notified as to the results of the examination. Be sure to provide the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION when inquiring about this application. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. If an error is noted on this Filing Receipt, please write to the Office of Initial Patent Examination's Customer Service Center. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the PTO processes the reply to the Notice, the PTO will generate another Filing Receipt incorporating the requested corrections (if appropriate).

#### Applicant(s)

Scott S. Campbell, Chappaqua, NY; Patricia J. Murphy, Ossining, NY;

## **Continuing Data as Claimed by Applicant**

THIS APPLICATION IS A DIV OF 09/074,455 05/07/1998 PAT 6,135,117 WHICH—AND CLAIMS BENEFIT OF 60/046,188 05/12/1997

AND WHIGH CLAIMS BENEFIT OF 60/072,121 01/22/1998

**Foreign Applications** 

If Required, Foreign Filing License Granted 10/20/2000

\*\* SMALL ENTITY \*\*

**Title** 

Non-ocular circadian clock resetting in humans

**Preliminary Class** 

128

Data entry by : MEREDITH, WANDA

Team : OIPE

Date: 01/29/2001



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#### PLEASE NOTE the following information about the Filing Receipt:

- The articles such as "a," "an" and "the" are not included as the first words in the title of an application. They are considered to be unnecessary to the understanding of the title.
- The words "new," "improved," "improvements in" or "relating to" are not included as first words in the title of an application because a patent application, by nature, is a new idea or improvement.
- The title may be truncated if it consists of more than 600 characters (letters and spaces combined).
- The docket number allows a maximum of 25 characters.
- If your application was submitted under 37 CFR 1.10, your filing date should be the "date in" found on the Express Mail label. If there is a discrepancy, you should submit a request for a corrected Filing Receipt along with a copy of the Express Mail label showing the "date in."
- The title is recorded in sentence case.

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